

**Abstract**

A method and system characterize jitter of an applied signal. The characterization includes acquiring a set of pseudo-randomly timed samples at a designated position on the signal, assigning a jitter value to each of the pseudo-randomly timed samples in the  
5 acquired set, and selecting a frequency from an array of frequencies based on a correlation of the assigned jitter values with the frequencies in the array. The periodic jitter associated with the signal is designated to have the frequency within the array of frequencies that has the highest correlation to the assigned jitter values.